COPPERSTATE
FIRE PROTECTION

Nov 21, 2019

Attn: Josh Good
          Creighton School District

RE: Gateway Elementary site evaluation

Dear Mr. Good:

The following is a Site assessment and Recommendation by CopperState Fire.

Site Assessment:
Gateway Elementary has an existing Simplex 4100 series fire alarm control panel providing full smoke detector coverage and horn strobe notification devices. The system has a long history of service calls for repair or troubleshoot which has been condensed to the following problems and conclusions:

- Map Card TFX #5 is failing to communicate correctly to the fire alarm control panel causing a lack of communication of all detection devices to the panel.
- Map Card TFX #8 is failing to communicate correctly to the fire alarm control panel causing a lack of communication of all detection devices to the panel.

Devices and wiring have been explored/troubleshot and appear to be in operating condition free of ground faults and troubles. Our conclusion is that the issues lie within the loop cards themselves.

Manufacturer End of Life Notice
CopperState has attached the end of life notice from the manufacturer which indicates these items have not been supported since 2014. <u>Map Cards are no longer procurable.</u>

Recommendations:
Due to the following:
- Inability to replace existing malfunctioning equipment.
- Not to code horn-strobe spacing for appropriate notification
- Not to current code requirements for Voice Evacuation.
- Aging wiring types and installation methods

CopperState would recommend this school for a new fire alarm system that would meet all current fire alarm codes and standards. With drop tile ceilings throughout most the school, we would recommend all devices be placed in the ceiling. There are two options for smoke detector coverage on an E occupancy which the district could choose.

- Opt. #1 full spot type smoke detector coverage throughout the school. No duct detection needed. This is the option most widely used for K-12 education facilities throughout Arizona

- Opt. #2 Duct detection on all HVAC units that would require it by code, and only spot type detectors in certain locations related to fire alarm panels, booster panels or fire rated doors. Although sufficient by code this is a much less efficient system only providing early warning in certain areas covered by duct detectors.

Note: Currently Gateway Elementary utilizes full smoke detection as well as most schools in the district.

CopperState Fire Protection would be delighted to be associated with the upgrade and can offer a NICET certified design, installation and programming through MOHAVE, or Arizona State JOC.

Kind Regards,
Brad Arnell
System Specialist
CopperState Fire Protection

Subject: 4100 Classic and 4100+ Panel Life-Cycle

Simplex Fire Alarm products have always demonstrated an unparalleled ability to upgrade to newer technologies while maintaining existing customer investments. This upgrade-ability has been possible due to our ongoing customer focus and philosophy to put customers first while understanding that long term value through lower life-cycle cost is of key importance to our customers.

Unfortunately, semi-conductor manufacturers sometimes cease production of essential components which effectively prevent us from continuing to manufacture replacement parts for older legacy products. This scenario is presently triggering the discontinuance of select replacement parts that were used in 4100 systems sold between 1988 and 2001.

4100 History - it has been:

- 30 years since the 4100 Classic was introduced in 1988,
- 29 years since 4100 Classic / 4100+ audio was introduced in 1989,
- 27 years since the 4100+ was introduced in 1991,
- 17 years since the 4100U was introduced in 2001, and
- 7 years since 4100ES was introduced in 2011.

Due to end-of-life components and software, the end-of-support for 4100 Classic systems occurred in 2014. Most recently some replacement parts for 4100+ systems have also reached their end-of-life and are no longer available. We will continue to source components from vendors for other replacement parts to support ongoing service needs for as long as possible; however, the technology is roughly 30 years old and it is becoming more difficult to source legacy components. As such, the future availability of other legacy components for 4100+ systems is uncertain and the time has come to begin planning for system replacements.

We deeply regret the impact this has to our customers and understand that any disruption to their facility, equipment, and operations is a significant concern. We are actively pursuing options to best assist customers that are affected by these end-of-life products.

Additional communications will be forthcoming as we have more information available. In the meantime, if you need immediate assistance or if you would like assistance with options for upgrading your existing Simplex equipment, please contact your local Simplex representative.

Respectfully,

Dan Gauvin

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